

~~On the Use of Medicines~~  
An Essay  
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against Inhalation of Medicinal  
Respectfully Submitted  
Associate to the  
Homoeopathic Medical College  
of Pennsylvania  
in the thirtyith day of January  
one thousand eight hundred & fifty  
for the sum of  
that will Entitle him to  
the degree of  
Doctor of Medicine  
the several and by the name of  
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## The Inhalation of Medicines

all coincide with an idea up to  
the present of medical  
agents has for centuries furnished the  
medical world a theme, for much and  
animated controversy. Two general and  
almost exclusive theories, each having  
their equally exclusive partisans, have  
in the main been adopted - known  
as the sympathetic and the absorbent.

The adherents of the former maintain,  
that other medicines, when brought into  
contiguity with the peripheral nerves  
distributed upon the membranes lining  
the stomach and other viscera, produce  
phenomena on all, even the most remote  
parts of the organism, through the medium  
of nervous sympathy.

The advocates of the latter, hold that all medicinal agents are taken up by the capillary vessels and lactated, and conveyed through the circulation to all parts of the body, producing their various phenomena by actual contact with the different tissues.

The strongest example of a purely sympathetic agency, are found in the action of Nitrovin and Hydrocyanic acid. Those who have taken the former even in a remarkably minute quantity, have observed marked effect of it in a few seconds, though a particle of it had not been swallowed.

The latter has been known to produce symptoms on the human subject in fifteen seconds, and to prove fatal.

to young cats in from five to ten seconds, a time considered too brief for it to become absorbed into the circulation.

The absorption doctrine represents upon the general fact, that mind and saline medicaments, and such other agents as are detectable by clinical test, and also those which possess odorous properties, are generally capable of being detected in the blood, and often also in the exhalation from the lungs.

It affects not essentially our inquiry which theory we may adopt to explain the mode by which the pathogenic effects of medicinal agents are produced. It is highly problematical that the infinitesimal atom acts upon the same organs and

systems, and through the same medium  
as the grosser material. ~~through~~  
The intimate connection which the  
anatomical and physiological relation  
of the stomach and lungs with their  
passages, ~~leads~~ upon the subject,  
renders a general notice of them  
necessary ~~fully~~ ~~before~~ ~~the~~ ~~subject~~

This organ on each side with  
a ~~mass~~ ~~membrane~~ ~~that~~ which  
supplies the stomach is about a line  
in thickness, and when undistended is  
arranged in numerous rugae or folds,  
and is continuous with the oesophagus  
and the duodenum below. It is soft,  
villous, and of a light pink color.  
The living membrane of the air  
passages and lungs, is of an exceedingly

delicate structure, smooth and almost transparent. It extends through the minutest radicles of the bronchia, and expands with the formation of air-cells. The capacity of this organ for air is variously estimated. The maximum amount taken in at each inspiration is about thirty cubic inches.

Both these membranes are largely supplied with capillaries, the latter however more minutely than the former, for the purpose of exposing a vast amount of blood for oxygenation during the process of respiration. Some idea may be conceived of the great extent of the mucous surface of the lung, and of the infinite number of capillary vessels distributed upon

it, when we bear in mind that a middle sized man has about twenty-eight pounds of blood, and that all this is exposed upon the surface for evaporation every hour, and even three minutes.

Both viscera derive principally their nervous agency from the same source - the Pneumogastric nerve. The function of one is the digestion of aliment conveyed into it, and by it effects the absorption of its nutritient proportion for the maintenance of the body. It also through the arterial and venous capillaries, appropriates all fluids by the process of endosmosis. The other performs the important function of arterializing the blood.

and separating from it, the carbon with which it is charged.

In neither do we find any special provision for the digestion or appropriation of medicinal agents, and hence has arisen the declaration that the human Stomach was never intended as a receptacle for medicine.

Having briefly passed in review, those anatomical and physiological characteristics of the stomach and liver, which are particularly concerned in this inquiry, the most casual observer will not fail to notice the analogy in the structure of their mucous membranes.

That the capillary vessels are principally concerned in the appropriation of medicinal agents, is pretty

clearly established by the carefully conducted experiments of Eridmann and Gmelin. By incorporating in the food various substances possessing color, odor or chemical properties, by which they might be detected in the fluids - as Garryog, Madder and Sanguinaria, Musk, Camphor and Asafoetida, and saline substances as of Lead, Baryta and Mercury - and allowing a sufficient time for them to be taken up. Traces of them were generally found in the venous blood and urine, whilst they were rarely detectable in the chyle.

That the capillaries which supply in still greater profusion the mucous membrane of the lungs, deriving their various agency from

the same source, and presenting a vastly greater extent of surface, would be more competent to perform the same function. Could agents be brought in contact with this surface without disturbing their natural functions, appears to be a legitimate analogical induction.

It has been proved that water injected into the air passages, enters the pulmonary veins directly, or indirectly by the lymphatics—probably the former. Examples are not wanting of morbid phenomena, and even fatal consequences, from the injection and inhalation of medicinals and noxious agents. The color of perspiration in the blood and urine after inhaling it fumes—Sodium, Mercury, Tobacco.

Ammonium and other remedies produce  
this specific effect both speedily and  
powerfully when inspired.

Sulphureous Hydrogen, Carbureted  
Hydrogen, Nitrogen, and Carbonic Acid  
cause most imminent death by  
asphyxia. The last has frequently  
produced fatal results without simple  
asphyxia, in sleeping rooms where  
charcoal was burning. Sabadilla  
is mentioned by Prof. C. B. Matthews,  
as producing violent headache when  
carried in the hat upon the head.

Rhus vernix causes very severe  
erysipela by approaching in the  
vicinity of it.

Epidemic and Contagious  
diseases, as Small pox, Scarletina, Measles

and Typhoid Fevers, are supposed to be generated by inhaling their noxious effluvia. Intermittent and Remittent Fevers, also arise from mismanagement.

As regards the agents before mentioned, Glonine and Hydrocyanic Acid, it appears to me that their modus operandi is very clear. They are highly volatile even in cool air, and far more so when introduced to an elevated temperature in the cavity of the mouth. Their minute particles are conveyed by the first inspiration to every part of the vastly extended surface of mucous membrane in the lungs, they pass immediately into the capillaries, and carry directly to the left auricle and ventricle, and from thence to

the most remote and minute fibers of the body. All this may take place in the adult probably within ten seconds, and in the infant in less than half that time.

Hahnemann says "the remedy acts first as powerfully by communicating its medicinal influence to the system through the nasal fossa and the lung, as if a dose of the remedy had been swallowed" and also, "by increasing the number of inspiration, the power of the remedy may be increased a hundred fold."

Curiously to the views of many of the most distinguished and experienced homœopathists of the present day, it is of very little

convinced what potency what potency  
is administered provides it be the proper  
homoeopathic specific. Regarding their  
observation as correct, and considering  
it fully established that our medicines  
can be introduced into the lung in a  
sufficient quantity to impregnate the  
morbid system, without in any manner  
disarranging the harmony of their function,  
the conclusion is legitimate, that the  
full specific effect of remedies would  
follow their administration by  
inhalation. And certainly if the  
high potencies are capable of modifying  
diseases action, the dose of the thirtyeth  
attenuation or lower could hardly  
fail to act.

But we are not compelled

to rely upon reasoning to support our position. We have the testimony of one of the most correct medical observers of his age—the great founder of our system—who seemed to possess nearly the same confidence in medicine inhaled, as in its application of the stomach.

Many examples of a most striking character of cures by inhalation of the high potencies, are given by Dr. Gross, and published in the first volume of the Homoeopathic *Examiner*.

In my own brief practice, several cases have fallen under my observation, exhibiting the most brilliant results from this mode of administration. The following case

of Grammatical Errors, from the rarity  
of its occurrence, and from its extreme  
obstinate & the allopathic practice, is  
worthy of notice. In the Spring of  
1849, about the month of  
commencing the homopathic practice,  
I was called to Mrs. S. aged about 30  
years, who was bitten in the hand the  
day previous by a cat. She had felt  
noontide symptoms until this  
morning when she became very stupid  
and unconscious, and the jaws  
firmly locked. I arrived in about an  
hour after this symptom had  
set in. Her friends of course had not  
failed to rub her well with Spirit of  
Camphor and stuff Assafoetida  
into the mouth but all availed nothing.

All efforts had been made to arouse  
him by shaking and pinching, without  
making any impression. I immediately  
took from my pocket a vial containing  
the 13<sup>th</sup> potency of Piso Tomica, and  
placing it to his nostril, permitted  
him to inhale twice. In about thirty  
seconds a spasmodic action commenced  
in the lower eyelid - this continued to  
increase and in three minutes the facial  
muscle were involved, and in another  
minute he opened his eyes, which  
were fixed, for the first time in four  
hours. His dose continued to exert  
its influence, and in twenty minutes  
all the muscles relaxed, and he was  
able to converse. There was a strong  
tendency for some day after to a

return of the condition, which was  
readily removed by a repetition of  
the remedy.

I am disposed to think  
that the relative value of this mode  
of administering medicine has been  
far too little regarded by the profession.  
There are numerous cases in which  
there exists an urgent necessity of  
resorting to this mode - the patient  
not being able to swallow. Such  
are apoplexy, epilepsy, mania and  
paralysis of the muscles of deglutition.  
Fits, hysteria, convulsions, and  
those diseases in which dysphagia  
exists. In the diseases of children  
it is of great advantage when we  
do not wish to disturb their quietude.

Another advantage which this method possesses over that by the stomach, arises out of the fact that this organ is made the receptacle of food and drinks of various and heterogeneous qualities, liable at all times to distract the legitimate action of the medicine. The minute quantity has a remedy an intermission with its contents, rendering the time comparatively long before any considerable proportion of it can pass into the circulation. To produce a salutary reaction of the vital power against the disease, it would seem that the impression or stimulus of the dynamized agent should be but momentary, so that the reactive force might meet it

full influence when taken into the stomach, it requires from one to three hours for all its particles to enter the circulation, so that the last taken up might act prejudicial to the ~~rapid~~ reaction of the first ~~which may~~.

This objection does not exist to inhal'd medicine. It enters immediately the circulation, produces its impression in a few minutes, and leaves the vital organism full and uninterrupted time for reaction.

It may be objected - and with all apparent reason - that when medicine is exhibited by the lungs, it is introduced into a medium of Carbonic acid, which might in some degree modify its properties.

This objection however seems to exist in full force when taken by the mouth. The respiratory process is carried on through the medium of the mouth and nostrils - and under the most cautious management, a certain amount of expiratory air enters the cavity of the mouth at every respiration. If it possessed irritant properties, this would be sufficient to destroy the few effects of most medicines given.

As medicine however is proved with the counteracting influence, we do not consider it as exerting a modifying influence on the agent dynamically administered.

The writer would suggest

that all agents sufficiently volatile  
to be taken into the lungs in a  
quantity capable of producing  
pathognomonic symptoms, should  
be so proved in addition to  
proving them by the stomach.

We are aware that many  
high authorities regard the nerves of  
the stomach as the medium through  
which medicinal agents act upon  
the organism. But this view it would  
not affect materially our general  
position, as we have the same  
nervous agency in the lungs,  
which supplies the stomach, and  
the objection urged against the  
one would maintain near the  
same relation to the other.

Should the Essay have the  
desired effect, to call the  
attention of the profession more  
directly to this branch of inquiry,  
the writer will feel amply  
rewarded.

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